

In the Claims:

Amend the claims as follows:

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1. (Currently amended) A method for sending messages over secure communication links in networks, comprising:  
providing at least a first terminal in communication with  
10 ~~being able to change its method of network access and at least one other a second terminal with one or more possible intermediate computers between the first terminal and the other terminal performing network address and/or other translations,~~  
establishing a first secure communication link being  
15 ~~established between an initial network address of the first terminal and the a network address of the other second~~  
~~terminal,~~  
~~the link defining at least the addresses of the two terminals, and the first terminal performing encapsulation of messages~~  
20 sent in the first in said secure communication link using a first encapsulation method, to overcome network address and/or other translations made by said intermediate computers on the route, comprising:  
~~at the first terminal moving from said the initial network~~  
25 ~~address to a new network address,~~  
~~at the first terminal sending an encapsulated request message, using the first encapsulation method, from the first terminal to the other second terminal to change communication between the first terminal and the second terminal from the first~~  
30 secure communication link to a second secure communication link extending said secure connection to be between the new network address of the first terminal and the network address of the second other terminal, the encapsulated request message  
also containing a description of the first encapsulation  
35 method performed by the first terminal,

- the second terminal receiving the encapsulated request message,  
the second terminal using the description of the first encapsulation method to ~~on the basis of which description the~~  
5 ~~other terminal~~ detects translations of the encapsulated request message performed by said intermediate computers disposed en route between the first terminal and the second terminal,  
~~or~~ the ~~other~~ second terminal responding to the first terminal with a reply message, the reply message having with a description about detected translations made by said ~~possible~~ intermediate computers disposed between the new network address of the first terminal and the ~~other~~ network address of the second terminal and/or encapsulation methods supported by the ~~other~~ second terminal,  
15 the first terminal receiving the reply message and the description about translation made by intermediate computers and encapsulation methods supported by the second terminal,  
the first terminal selecting an encapsulation method to  
20 encapsulate a message based on the description of the reply message, and  
~~or thereafter~~ the first terminal sending the encapsulated message ~~from the first terminal~~ to the ~~other~~ second terminal by using the information sent with said reply.
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2. (Currently amended) The method of claim 1 wherein the method further comprises the second terminal detecting address translations performed by the intermediate computers and including a description of translated source and/or destination addresses in description of the reply message  
30 include source and/or destination addresses on the basis of which the second receiving terminal detects address translations performed by intermediate computers.
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3. (Currently amended) The method of claim 1 wherein the

description of the reply message has ~~of the message includes~~ information about encapsulation protocols, as well as source and destination transmission control protocol (TCP) or user datagram protocol (UDP) ports.

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4. (Currently amended) The method of claim 3 wherein the method further comprises performing network address translation (NAT) traversal ~~is performed by UDP encapsulation~~ or TCP encapsulation and/or by another encapsulation.

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5. (Currently amended) The method of claim 1 wherein ~~after receiving of the request message by said other terminal sent in step c), the other terminal determines by the method~~ further comprises the second terminal examining the encapsulated request message to determine which translations and/or encapsulations are required in the traffic between the first terminal and the ~~other~~ second terminal.

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6. (Currently amended) The method of claim 5 wherein the reply message ~~of step c)~~ contains information about the second secure communication link to be used between the new network address of the first terminal and ~~said other~~ the second terminal.

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7. (Currently amended) The method of claim 6 wherein the information about the second secure communication link includes information about whether network address translation (NAT) traversal is and/or ~~other encapsulation~~ should be used.

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8. (Currently amended) The method of claim 1 wherein the method further comprises in step c) the first terminal ~~compares~~ comparing the descriptions of the request message with the description of the respective reply messages and ~~sends~~ sending all subsequent messages from ~~this~~ the new network address based on the comparison of the descriptions

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regarding which ~~on the basis of the comparison~~ telling what encapsulations, protocols and rules to use should be used in the ~~further communication~~.

5 9. (Currently amended) The method of claim 1 wherein the first secure communication link is formed by using an ~~the~~ Internet security protocol IPSec ~~protocol~~.

10 10. (Currently amended) The method of claim 9 wherein the reply message in step d is sent by using IPSec and a network address translation (NAT) traversal that is updated to the new network address of the first terminal.

15 11. (Currently amended) The method of claim 1 wherein the reply message in step d is sent without a network address translation (NAT) traversal in the first secure communication link when the description of the reply message corresponds to the description of the request message ~~the descriptions correspond to each other~~.

20 12. (Currently amended) The method of claim 1 wherein the method further comprises providing a the secure connection with ~~is~~ an Internet security protocol (IPSec) security association (SA).

25 13. (Currently amended) The method of claim 12 wherein the method further comprises using a key exchange mechanism that passes through a network address translation (NAT) ~~is used~~ when forming the IPSec SA.

30 14. (Currently amended) The method of claim 12 wherein ~~the~~ a key exchange mechanism ~~protocol~~ is an Internet key exchange (IKE) when ~~the~~ a network address translation (NAT) device supports ~~the~~ a user datagram protocol (UDP) ~~protocol~~.

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15. (Currently amended) The method of claim 14 wherein a the  
key exchange mechanism is used when forming the IPSec SA and  
wherein several traversal mechanisms are used simultaneously  
to increase ~~the~~ a chance that at least one of the traversal  
5 mechanisms passes ~~them pass~~ through the NAT device.

16. (Previously presented) The method of claim 12 wherein a key  
exchange mechanism is performed when forming the IPSec SA in  
which a negotiation process is used to agree on protocols to  
10 be used in the further communication.

17. (Currently amended) The method of claim 12 wherein an  
encapsulation protocol is used in ~~the~~ a key exchange mechanism  
when forming the IPSec SA.

18. (Currently amended) The method of claim 1 wherein the  
network address of the ~~other~~ second terminal is ~~the~~ an end  
destination address of messages sent from the first terminal,  
~~in which and using~~ case transport or tunnel mode ~~is used~~ in  
20 the first and second secure ~~IPSec~~ communication links.

19. (Currently amended) The method of claim 1 wherein a ~~the~~  
destination address of the message is ~~the~~ a network address of  
a host which is not the ~~other~~ second terminal, ~~in which case~~  
25 and using tunnel mode or transport mode together with a  
tunneling protocol ~~is used in the IPSec~~ the first and second  
secure communication links.

20. (Currently amended) The method of claim 1 wherein several  
request messages ~~of step b)~~ are sent, each request message  
being processed using a different traversal mechanism, ~~where~~  
~~after the other terminal indicates~~ and the second terminal  
30 indicating in the reply message which encapsulation methods is  
to be used ~~in the further communication~~.